Electronic Supplementary Table 1

BHU-EPMA CALIBRATION STATISTICS

BHU-EPMA (CAMECA-SXFive) calibration setting for common silicate minerals phases (olivine, mica, pyroxene, amphibole, spinel, garnet, feldsphoids and feldspar). The following X-ray lines were used in the analyses along with their counting statistics with respect to natural and synthetic standards:

At. No.	Element & X-ray	Crystal	Peak Time (ns)	Bckgd (-ve)	Bckgd (+ve)	Standard	Composition	Standard Intensity (cps/nA)
9	F-*Kα*	TAP	10	-500	+500	Fluorite	CaF_2	15.671
11	Na-*Kα*	TAP	10	-500	+500	Albite	$NaAlSi_3O_8$	387.505
12	Mg-*Kα*	TAP	10	-500	+500	Periclase	MgO	896.505
13	Al-*Kα*	TAP	10	-500	+500	Corundum	Al_2O_3	1053.184
14	Si-*Kα*,	TAP	10	-500	+500	Wollostonite	$CaSiO_3$	464.060
15	P-*Kα*	PET	10	-500	+500	Apatite	$Ca_5(PO_4)_3(F,Cl,OH)$	73.845
16	S-*Kα*	PET	10	-500	+500	Pyrite	FeS_2	169.995
17	Cl-*Kα*	PET	10	-500	+500	NaCl	NaCl	176.506
19	K-*Kα*	PET	10	-500	+500	Orthoclase	$KAlSi_3O_8$	69.222
20	Ca-*Kα*	PET	10	-500	+500	Diopside	$CaMgSi_2O_6$	354.887
22	Ti-*Kα*,	LIF	10	-500	+500	Rutile	TiO_2	58.679
24	Cr-*Kα*	LIF	10	-500	+500	Chromite	Cr_2O_3	81.590
25	Mn-*Kα*	LIF	10	-500	+500	Rhodonite	$MnSiO_3$	36.529
26	Fe-*Kα*	LIF	10	-500	+500	Hematite	Fe_2O_3	79.794
28	Ni-*Kα*	LIF	10	-500	+500	Nickle	Ni	92.643
38	Sr-*Lα*	TAP	10	-500	+500	Celestine	$SrSO_4$	359.136
39	Y-*Lα*	TAP	10	-500	+500	Y-Glass	Y-Ca-Al-Si	272.395
40	Zr-*Lα*	TAP	10	-500	+500	Zircon	$ZrSiO_4$	293.294
41	Nb-*Lα*	PET	10	-500	+500	Niobium	Nb	106.480
56	Ba-*Lα*	PET	10	-500	+500	Barite	$BaSO_4$	20.277